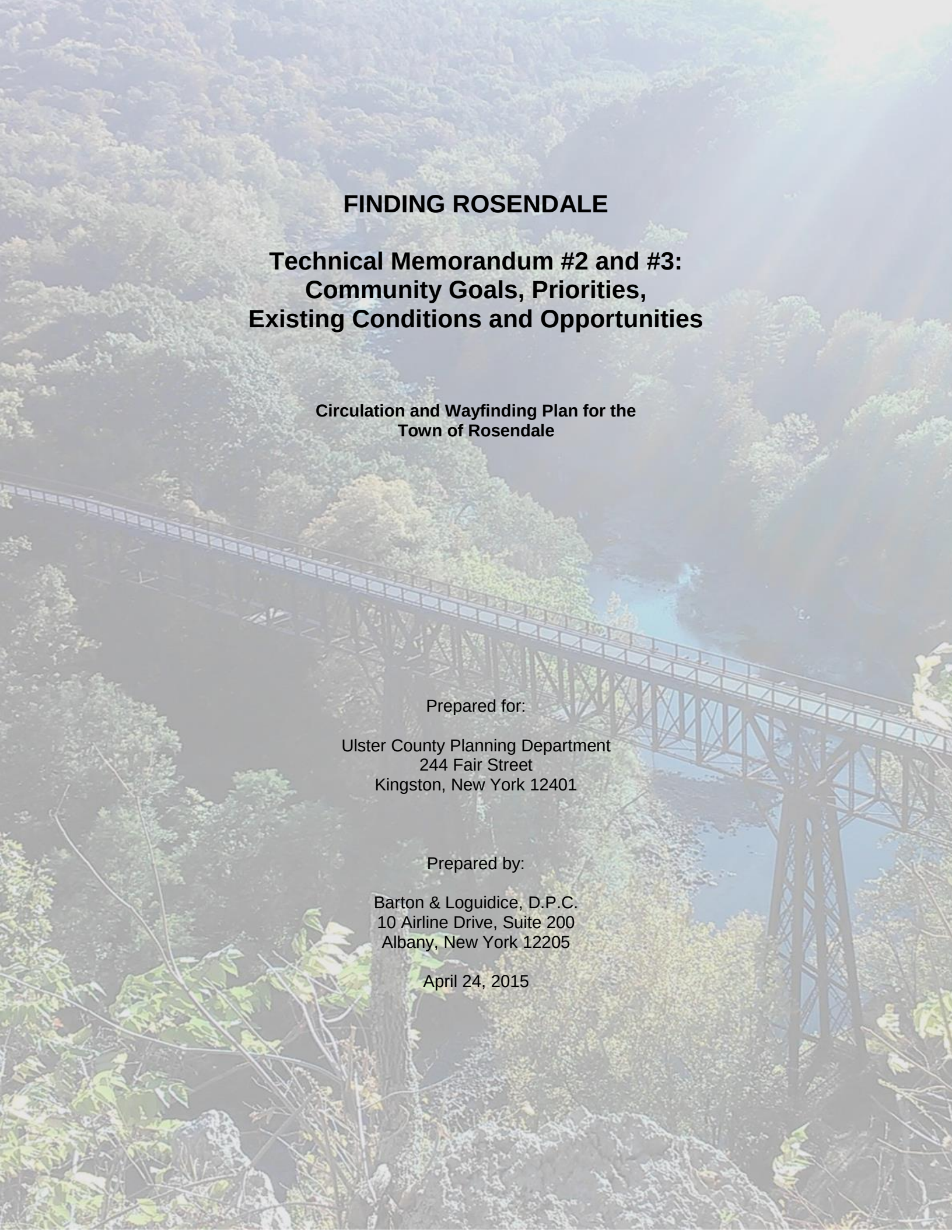

FINDING ROSENDALE

Technical Memorandum #2 and #3: Community Goals, Priorities, Existing Conditions and Opportunities

Circulation and Wayfinding Plan for the Town of Rosendale

Prepared for:

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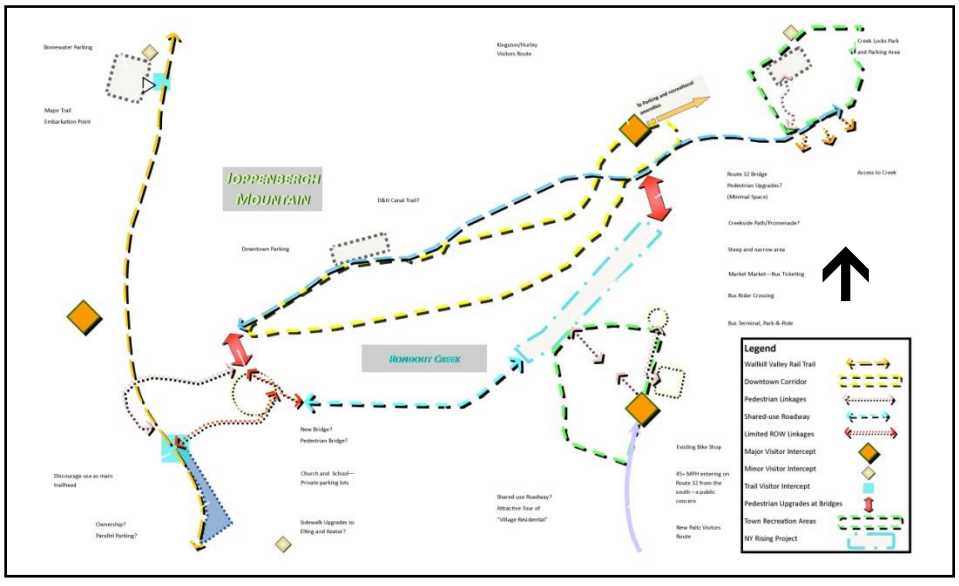
Community Goals, Priorities, and Existing Conditions

1. Introduction:

This document will establish the background information and preliminary analysis for the Finding Rosendale: Town of Rosendale Circulation and Wayfinding Plan. The Town of Rosendale identified the need for a plan that evaluates ways to improve circulation, connectivity and wayfinding between recreation areas, public parking lots and commercial properties in and around 'Downtown Rosendale' in a manner that respects private properties. Recreational features and attractions such as the Wallkill Valley Rail Trail, Rosendale Trestle, Joppenbergh Mountain, and the Williams Lake Project are expected to draw increasing numbers of new visitors to the area across several modes of travel (bike, pedestrian, and auto). Ensuring that visitors using all modes are able to navigate safely and efficiently to and from these facilities and into the town center without significant conflict is a primary concern. To capitalize on this influx of visitors, Ulster County and the Town of Rosendale are overseeing the preparation of this Circulation & Wayfinding Plan to:

- Improve linkages between parking, trails, and businesses;
- Provide better wayfinding; and
- Provide safe pedestrian/bicyclist accommodations in appropriate locations throughout the Town.

This Community Goals, Priorities, and Existing Conditions Technical Memo will preview the relevant recommendation of other plans and catalog existing conditions of vehicular, pedestrian, bicyclist, and parking facilities. The document will outline underlying community goals and priorities with respect to traffic, parking, business development and recreational opportunities. Recommendations will be developed that will help the Town cultivate physical connections between these amenities and establish a system that seeks to encapsulate them into one cohesive brand.



2. Existing Project Area Conditions

To begin compiling this background and baseline data, B&L compiled base mapping using ESRI ArcMap with public data and data provided by Ulster County. The team also reviewed local planning documents relevant to transportation and wayfinding within the study area. The B&L / WDesign consultant team conducted site reconnaissance and transportation analysis which was summarized in Figure 1: Finding Rosendale.

2.1. GIS Base Mapping

B&L produced several maps that aided in the development of improvement concepts and the scoping of future field visits including:

- Aerial imagery
- NYSDOT data
- NYSORPS property ownership data
- Preliminary features and routes
- Preliminary improvements concepts

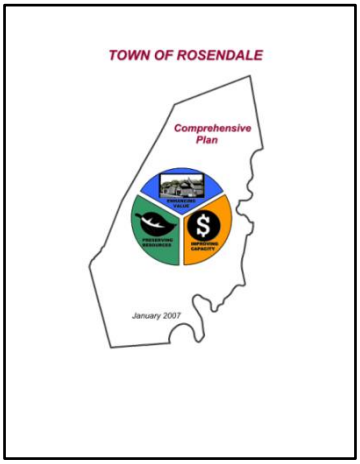
2.2. Review of Local Planning Documents

Previous planning documents pertinent to the Finding Rosendale project were reviewed by the consultant team including:

- Town of Rosendale Comprehensive Plan (2007)
- Ulster County Non-Motorized Transportation Plan (2008)
- Draft/Proposed Town of Rosendale Design Standards & Guidelines (2012)
- Shawangunk – Joppenbergh Public Planning Process (2012)
- Williams Lake Project Final EIS (2013)

Each of these plans was reviewed for support and correspondence with the goals and objectives of the Finding Rosendale Project.

2.2.1. Town of Rosendale Comprehensive Plan (2007)



In an attempt to outline updated policy recommendations for future development, the Town of Rosendale Comprehensive Plan was developed between 2001 and 2007. Its aim was to provide benefits to the Town and its residents including:

- A high quality of life supported by a healthy and scenic environment
- A strong community character reflected in

quality neighborhoods, vital businesses, and strong cultural and historic resources

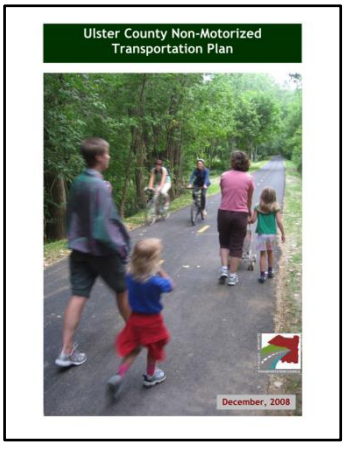
- Avoidance of long-term costs to taxpayers from poor quality development. Poorly designed development comes with long-term costs: roads washed away prematurely by erosion, failed sewers and septic systems, visual blight that drives away business. This plan seeks long-term relief for taxpayers by ensuring that actions taken today will not come with these hidden costs for tomorrow.

The Comprehensive Plan makes numerous references and recommendations that support the efforts of the Finding Rosendale Project including:

- Encourage pedestrian-centered developments that enhance existing neighborhoods, instead of isolated developments requiring new roads or expanded vehicle use.
- Development should be encouraged to be consistent with community character and, where appropriate, pedestrian-oriented in its design through the use of design guidelines for commercial development, particularly encouraging connections between Main Street and the Route 32 corridor.
- The Plan recommends that the Town "establish and/or maintain strong pedestrian connections among the business and residential areas in the Rosendale hamlet".

Appendix A: Inventory/Basic Studies of the Comprehensive Plan describes some preliminary existing conditions analysis of pedestrian and bicycle connections in Rosendale. This analysis briefly introduces concerns regarding narrow right-of-way and its impact on pedestrian and bicycle safety. The baseline interest in these connections supports the Finding Rosendale Project. Identifying optimal non-vehicular linkages and providing signage for such routes will help alleviate pedestrian and bicyclist safety concerns.

2.2.2. Ulster County Non-Motorized Transportation Plan (2008)



The Ulster County Non-Motorized Transportation Plan (NMTP) was developed in 2008 with the objective to study ways to make non-motorized connections between schools, work and recreation destinations. The overall goal was to help create a sustainable future for Ulster County by improving the connection between the human and natural environments.

There are several instances in which the Non-Motorized Transportation Plan related to the objectives of the Finding Rosendale Project, such as the

following:

- In its Design Guidelines chapter, the NMTP describes the importance of wayfinding signage and how implementing a well-planned and attractive system of signage can greatly enhance facilities, making their presence aware to motorists, as well as existing and potential non-motorized users;
- On-street facilities, off-street facilities, and informational kiosks are all discussed in this section and will be outcomes of the Finding Rosendale Project;
- The Design Guidelines chapter of the NMTP also discusses the significance of destination signage as helpful for downtown destination areas and navigating toward major bikeways, transit hubs, or greenway trails.

The Goals and Objectives chapter of the NMTP includes several goals that relate to the project including:

- Build a connected non-motorized transportation system in Ulster County;
- Increase the number of people walking and bicycling for transportation and recreation in Ulster County.

The document identifies over 90 priority projects across Ulster County that would create a county-wide non-motorized transportation system. Among those projects relevant to the Finding Rosendale project include:

31: Wallkill Valley Rail Trail development

40: County Wide Bike Parking Program

58: Signage/Wayfinding Plan Update

65: Bike Lanes/Shoulder on State Route 32

68: Paved shoulders – integrated into County Roadways

71: Provide signed and striped bike lanes on NYSDOT bike routes

72: Link the two major rail trails (Kingston/High Falls & Rosendale/Wallkill)

#74: Dual surface trail (asphault and stone) on Wallkill Valley Trail

#79: Traffic calming on Springtoown Road in Rosendale

89: Increase use of in-street crosswalk signage, and

#93: Pedestrian Crosswalk Signage and Striping.

The Finding Rosendale Project will be prepared with these projects in mind.

2.2.3. Town of Rosendale Design Standards & Guidelines (Proposed 2012)

The Town has drafted a significant amendment to their Design Standards and Guidelines which, if enacted, will have direct bearing on the implementation of elements described in the Finding Rosendale plan. The draft code has not officially been adopted and applies primarily to new commercial, industrial, multi-family development, and major rehabilitation projects in the Town's business districts and Hamlet Gateway area along Route 32.

Section D of the proposed amendment is dedicated to vehicular and pedestrian access and circulation. This section suggests shared access to adjacent parcels, accommodation for pedestrian crossings of driveways, and several measures to reduce pedestrian – vehicular conflicts.

The code requires 'systems of pedestrian walkways' and interconnections to adjacent public and private pedestrian systems. Walkway specifications of 8-feet-wide apply along front facades and 5-feet-wide specifications apply elsewhere.

Section I of the proposed code regulates signage, prohibiting a number of visually obtrusive sign types and requiring a Master Sign Plan and maintenance of signage.

The Finding Rosendale Project will be significantly consistent with the stated intent of Section D – Vehicular and Pedestrian Access and Circulation, which states:

> *Provide safe, efficient, and convenient vehicular and pedestrian access and circulation patterns within and between developments. By creating a safe, continuous network of pedestrian walkways within and between developments, pedestrians will feel more inclined to safely walk (rather than drive) between stores. A pedestrian network that offers clear circulation paths from the parking areas to building entries creates a friendlier, more inviting image.*

…as well as Section I - Signage, which states:

> *Promote attractive signs which clearly present their visual messages in a manner that is compatible with their surroundings; to reduce sign or advertising distractions and obstructions that may contribute to traffic accidents.*

Appendix B: Signage Guidelines for Rosendale includes several recommendations for signage in the Town, focused on Main Street in Rosendale. The intent of this proposed policy is to promote attractive signs which clearly present their visual messages in a manner that is compatible with their surroundings. It is also intended to reduce sign or advertising distractions and obstructions that may contribute to traffic accidents. This analysis has implications for how and where signage may appear as an outcome of the Finding Rosendale Project.

Williams Lake Resort Rendering
(Courtesy: www.williamslakeproject.com)

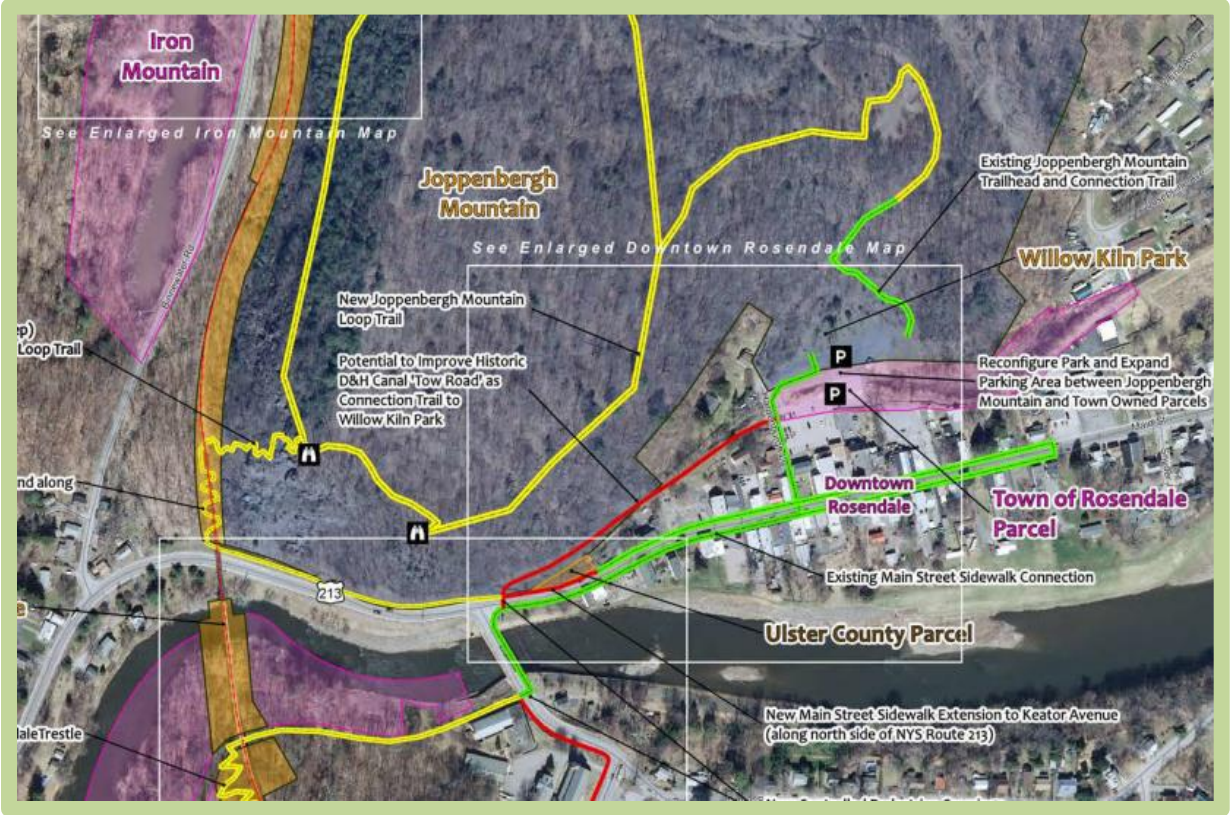
2.2.4. Williams Lake Project Final EIS (2013)

The Williams Lake Project, produced by Hudson River Valley Resorts LLC, will include 142 units of townhomes and single-family residences, 12 workforce housing units, a 130-room hotel, a wellness center, 17,000-sq.-ft. spa, fitness center, outdoor activities center, historic interpretive center, and a bistro café in the kiln area of the property. The Final Environmental Impact Statement (FEIS) provides a wealth of information about the redevelopment of the Williams Lake Hotel property to the north of the Finding Rosendale Project study area and directly on the Wallkill Valley Rail Trail. Impacts to consider on the Finding Rosendale Project include:

- Orienting resort clientele to the amenities provided outside of the resort area, with particular emphasis on the resort's proposed shuttle service between the resort and the Rosendale Park-and-Ride on Route 32;
- Capturing trail users traveling south from Williams Lake;
- Accommodating resort "day pass" users, using the Wallkill Valley Rail Trail to reach the resort;
- Capturing resort visitors seeking retail opportunities in the nearby area due to limited opportunities on-site. The developer intends to limit retail shops at the resort to gift shops associated with the hotel or spa.
- Resort facilities will be available to trail users for a nominal fee.
- The project is reportedly going to include construction of a Trail-side Café on the Wallkill Valley Rail Trail.

The details provided in the Williams Lake Project FEIS offer valuable insight relevant to potential circulation, connectivity, and wayfinding opportunities. It underscores the significant opportunity that can be found through the successful marketing of Rosendale businesses to Resort clientele. It further

underscores some of the potential challenges that the Resort may pose regarding traffic and circulation.



Map of Rosendale from the Shawangunk-Joppenbergh Public Planning Process

2.2.5. Shawangunk Joppenbergh Public Planning Process

The Mohonk Preserve (MP), in partnership with the Open Space Institute (OSI) and the Wallkill Valley Land Trust (WVLT) conducted a public planning process to discuss access to and interconnectivity between various recreation areas and activities in and around the Town of Rosendale, New York.

The Final Report and Recommendations Plan provides a road map for implementing short, medium, and long-term recommendations to accomplish interconnectivity between the various recreation resources and the Town of Rosendale. Key projects goals from the SJPPP are as follows:

- Connecting existing recreation areas to existing public rights of way for pedestrian and bicycle access;
- Increasing safe, off-street parking areas (within existing paved areas) that can be shared between recreation and municipal uses to minimize existing unsafe illegal parking along Town roads;
- Creating new trailhead locations;

- Providing additional signage within existing and new trailhead locations, that directs visitors to legal parking areas and other recreation area connection points;
- Supporting the local economic well-being of the Town of Rosendale by providing seamless connections between Mohonk Preserve and Wallkill Valley Land Trust recreation areas and the Town.

The SJPPP provides numerous recommendations to consider in the efforts of this project. The Finding Rosendale Project will also directly implement some of the recommendations in the SJPPP.

Top: View of the Trestle from the Joppenbergh Mountain Trail

Bottom: Backs of businesses on Main Street from Willow Kiln Park.

2.3. Site Reconnaissance and Key Observations

During the summer and fall 2014, the B&L / WDesign team conducted field visits of the study area in Rosendale. The visits were intended to collect data, document the project area and experience the project area from a user's perspective. Key objectives included:

- To gain a better understanding of ways and routes that motorists can use to get to and from the four main parking areas and downtown;
- To gain a better understanding of ways that Wallkill Valley Rail Trail (WVRT) users to get to downtown and the Rosendale Recreation Center;
- To gain a better understanding of ways that bicyclists can use to travel between the four parking areas to downtown and the rail trail;
- To inventory existing signage types and systems;
- To assess the transportation network and pedestrian accommodations.

Observation specific to several important features of the Finding Rosendale study area are provided below.

2.3.1. Park and Recreation Areas

Rosendale Recreation Center:
The Rosendale Recreation Center has a large paved parking lot that serves the Center, playgrounds, pool, pavilion and athletic facilities. This site includes numerous important recreation and cultural facilities including tennis courts, basketball courts, swimming pool, bathhouse, large pavilion, an active play structure, community center building, softball field and day care building. With its location, space, and amenities, the Recreation Center appears to serve as an ideal welcome center for Rosendale. This would similarly be a natural fit for a designated bike comfort station, complete with lockers, showers, bike air hose, and an information kiosk local business directory.

Sign for the Rosendale Community Center, located at the Recreation Center

Creek Locks Park: The future site of Creek Locks Park offers sizable green space and easy shoreline access along the Rondout Creek. Its location on the opposite side of downtown from the WVRT could foster Main Street commerce by drawing trail users down along NY-213 to the park. A pleasant shoreline connection can be created at the top of the north bank of the Rondout to the 'triangle' at the intersection of NY- 213 and NY-32. The route would provide a

direct connection to downtown via Main Street and offer trail users a safe crossing at the signalized intersection. Alternative pedestrian connections between Creek Locks Park and Route 32 can be created along either shoulder of Creek Locks Road leading to the signalized Route 213 and 32 intersection. In addition to the creation of a trailhead parking facility and shoreline trail and access, the Town intends to develop athletic facilities for the Rosendale Little League at the site.

Willow Kiln Park: This site provides the primary off-street parking area for downtown Rosendale. The parking area features landscaping, lighting and other aesthetic and comfort amenities and is generally at full capacity during peak hours. Access to the Joppenbergh Mountain Trail is gained through the area and an interpretive park has been established adjacent to the lime kilns along the northern park boundary.

Binnewater Road Parking Area: Located on Binnewater Road (CR-7), this site has the only direct access to the WVRT and offers expansive space for cars as well as horse trailers and buses. The lot is currently the most popular starting point for visitors to Rosendale and more competitive cyclists using the WVRT. A row of large kilns lines the western edge of the site and just south of the site is an old reservoir. The Town plans to make improvements to this area including walking trails, interpretive signage and landscaping.

Binnewater Road Parking Area

2.3.2. Transportation Systems and Trails

Wallkill Valley Rail Trail (WVRT) and Rosendale Trestle: The WVRT, which passes south to north through the project area, is a dirt/stone path ranging in width from 8-12' with a fairly consistent gentle gradient. Where the Trail crosses the Rosendale Trestle, the clear path width is about 10', surfaced with a composite timber deck which provides a gentle smooth ride for bicycles. With the exception of the Mountain Road crossing and the trestle, the WVRT is in quiet, pleasant, natural woodlands as it passes through Rosendale. There are several trailheads and potential contact points along the Rosendale segment of the WVRT:

- River Road Ext. Trailhead: The WVRT passes over River Road Extension approximately 1.7 miles south of the trestle at the entrance to the Center for Symbolic Studies. Informal parking for two or three cars is available but the

site is lacking a formalized connection to the trail. The trail can only be accessed by traversing the steep side-slopes on the north abutment side.

- Abandoned Snyder Mine/Mohonk Preserve Area:
A walking path connects the WVRT to the Snyder Mine, an abandoned quarry approximately one mile south of the Trestle. Opposite the quarry site the trail corridor is bounded by land owned by the Mohonk Preserve. Formal trailheads do not exist in these locations, but a link to hiking trails from the WVRT is planned by the Mohonk Preserve. The Town plans to develop a more formal trail link into the Snyder Mine property. A fascinating array of historic mining facilities is a short walk from the trail on both sides, providing an interesting interpretive trail rest stop.

Abandoned mining facilities on the Snyder Mine Property

- Mountain Road Trailhead:
The crossing of Mountain Road near the south landing of the Trestle was traditionally a popular place for trail users to access the trail and Rosendale Trestle. Since the opening of the Trestle, however, parking is no longer permitted at the site due to limited space, proximity to private property, poor access and limited sight distances. Illegally parked cars on the narrow road can impair the safety of the trail crossing of Mountain Road. While the location is easy to find, the adjourning private properties, steep rock outcrops, steep slopes and narrow street make this a difficult site for development of a formalized access site with off road parking. The site can still function as an important pedestrian and cyclist trailhead. The Town desires to develop the access point primarily as a pedestrian trail head. Ulster County Department of Public Works is presently considering improvements to the shoulder of Mountain Road which may also provide opportunity for improved pedestrian facilities.

Trail head at Mountain Road

- Binnewater Road Park: A parking facility has been established on Binnewater Road with direct access to the WVRT via a side cut off of the main trailway. The parking area offers an expansive capacity that can accommodate trailered vehicles. The row of historic cement kilns that line the western edge of the open area could provide an opportunity for development of a park with view of Joppenbergh Mountain similar to the setting at Willow Kiln Park. A small reservoir, currently emptied, is adjacent to the parking area. The trail connection is on the opposite side of Binnewater Road and directions to the WVRT are provided on some handmade signage. Site distance for the crossing is good (greater than 500' in both directions); however, the speed limit is 45 MPH. There is a marked crosswalk and warning signage for the pedestrian crossing.

Parking area at Binnewater Road, looking toward Joppenbergh Mountain

- Breezy Hill Road Trailhead: Approximately 1.5 miles north of the Trestle, the WVRT crosses Breezy Hill Road at a complicated intersection with Binnewater Road (CR7), Sawdust Avenue (CR26), and Binnewater Lane. Sight distance is poor for west bound traffic on Breezy Hill (~125') due to a horizontal and vertical curve just east of the trail. Binnewater Lane appears to occupy the trail corridor and parallels Binnewater Road with an intervening open space used for parking and access to the trail. Trail signs mark the WVRT entrances to the north and south of Breezy Hill Road. There is a formal parking area for approximately 20 cars off Binnewater Lane and additional cars were observed parallel parking on both sides of Binnewater Lane.

Route 32: Route 32 is a State Road and is the main connecting route for Rosendale, north to Kingston and south to New Paltz. From the South, Route 32 enters the Rosendale hamlet as a three lane highway with 12'-wide travel lanes, 12'-wide median/turn lane/additional travel lane and 8'-wide shoulders and a posted speed limit of 55 MPH. Opposite the Rosendale Senior Center there is a warning sign of a 40 MPH speed limit ahead. The speed limit is posted at 40 MPH near the Rosendale Recreation Center and that speed zone continues north through the hamlet until a transition back to 55 MPH to the north. The road is signed as Bicycle Route 32 and the only pedestrian facilities in the study area along this route are a 5'-wide sidewalk on the southbound lane between the bridge over Rondout Creek and the Rosendale Recreation Center. There are several key intersections and crossings in this segment of Route 32 including:

- Rosendale Recreation Center at the park and ride lot: The speed limit at this intersection is 40 MPH, however, cars are observed at speeds well above the limit in front of the Recreation Center, likely due to the change in speed limit to 55 just south of the entrance. While there is no formalized crossing, there are several reasons for pedestrians to need to cross Route 32 here and it is likely that there will be a significant increase in pedestrian crossings as the Town completes repairs on the Bathhouse and pool and creates trail user comfort facilities. Bus tickets must be purchased at "Market Market" Café and Bistro just north on the southbound side of Route 32 from the bus stop, thus necessitating a crossing, which logically happens at the end of the sidewalk between the restaurant and the Recreation Center. Bus riders have been observed crossing Route 32 from the Recreation Center parking lot with luggage and these kinds of crossings may increase as park and ride lot is regularly at capacity. A private bicycle rental and repair shop is likely to create an increase in bike use and crossing of Route 32 at this intersection as the Town implements plans to develop a bike connection to the WVRT and trestle.

- Rondout Creek Bridge: The bridge provides pedestrian pathways on both sides that are each approximately 5'-wide.

Rondout Creek Bridge looking south down Route 32

- Route 213/Main Street "Triangle": The intersection of NY Route 32 with NY Route 213 (Main Street) and Creek Locks Road is known as the 'Triangle' and is a somewhat confusing intersection for drivers and pedestrians alike. It is controlled by two signals and stop signs at all points and as a result traffic negotiates the intersection at relatively low speeds, well below the posted 40 MPH speed limit. There are currently no pedestrian crosswalks in the 'Triangle'; however, the Route 32 sidewalk on the southbound side continues on to join the sidewalk systems on Route 213/Main Street. Along the northbound side of the triangle a private commercial plaza/strip mall parking area is separated from the road by a wide shoulder and bollards.

"The Triangle" – Routes 32 and 213

- Creek Locks Road: This intersection is at the north apex of the "Triangle" and is also signalized. As with the majority of the triangle, there are no pedestrian amenities. The east/west crossing of Route 32 is aligned with the anticipated D&H towpath trail at this intersection.

James Street: James Street parallels the South Shore of the Rondout Creek and makes a connection between Route 32 and Keator Avenue. There are currently no pedestrian amenities along the segment of James Street between Route 32 and Parkcrest Drive. Pavement width is approximately 26' (Two 11'-wide lanes with 2'-wide shoulders). The segment between Parkcrest and Keator widens significantly to accommodate on street parking and includes narrow sidewalks on both sides. James Street is generally about 36'-wide through this segment which would accommodate minimal 10'-wide lanes and 8'-wide parallel parking. Sidewalks are 4'-wide and offset 18-24" from a stone vertical curb. Curbing and sidewalks are generally in need of replacement and upgrade. The Recreation Center site has double frontage on James Street and Route 32. The Town has

discussed a trail connection linking James Street to Route 32 through the Recreation Center. That connection along with plans to develop a creek-side promenade along James Street to improve the resiliency of the Rondout shoreline will likely increase pedestrian and bicycle crossings along James Street. The Town has an interest incorporating a multi-use path as part of the Promenade in the James Street Right-of-Way.

Main Street: NYS Route 213/Main Street provides the main commercial route through Downtown Rosendale and thus connects Route 32 to businesses, parking and to the Wallkill Valley Rail Trail and Trestle via Binnewater and Mountain Road. Main Street is 30'-wide providing two 11'-wide travel lanes and an 8'-wide parallel parking lane along the eastbound shoulder. Five-foot wide sidewalks are located at the curb line on both sides of the road. The building frontage is primarily pedestrian space between facades and the curb line, creating a pedestrian space up to 8'-wide. In front of some buildings there is a narrow 2' to 3'-wide strip maintained as landscaped green space. The posted speed limit on the "downtown" segment is 30 MPH and by virtue of the narrow enclosed character of the street, traffic appears to be traveling at or near the speed limit. Two formalized (striped) mid-block crossings exist on Main Street, one at the Rosendale Post Office and a second at Hardenburgh Lane.

Main Street / Route 213, Downtown Rosendale

Creek Locks Road (CR25): Creek Locks Road, also known as County Road 25, travels west from Route 32 towards Port Ewen. Creek Locks Road has narrow, 10'-wide travel lanes with 2'-wide shoulders, however the County right-of-way is approximately 40' to 50'-wide. There are currently no pedestrian amenities on the road. Built over the original D&H land, Creek Locks Road meets Route 32 at a

signalized intersection directly opposite a utility corridor that is on the old D&H towpath. The road will become an important connection route once the Town completes the anticipated development of Creek Locks Park including parking and ball fields on the Town-owned parcel of land just east of Route 32.

Binnewater Road (CR 7): Binnewater Road is one of the main connecting routes between downtown and the large parking area that provides access to the WVRT at the north Rosendale Trestle Trailhead. The road intersects with NY Route 213/Main Street just west of downtown Rosendale and from that intersection the roadway is narrow and climbs steeply to the Binnewater Road Trailhead parking area. There are minimal shoulders along the steep gradient near Main Street, which widen to 4'-wide approaching the parking area. The speed limit is 45 MPH, though a 30 MPH zone is posted at the Breezy Hill Road intersection about 2 miles north of Route 213/Main Street. The Town plans to further enhance the Binnewater Road Trailhead parking area including formalized parking and other facilities which will increase the pedestrian, bicycle and equestrian crossings of the road. To accommodate the crossing, a formalized crossing treatment and advanced warning signage on Binnewater Road is also anticipated.

Keator Avenue/Mountain Road: Keator Avenue is a short segment of CR 7 which has two 12'-wide lanes, 2'-wide shoulders, with 5'-wide sidewalks on both sides. The road intersects Main Street and a bridge carries the road over the Rondout Creek. Keator turns sharply and rises steeply to the intersection of Elting Road (CR 7) and Mountain Road. The WVRT crosses Mountain Road approximately 120' from that intersection. At Elting Road, the road becomes Mountain Road, with 12'-wide lanes continue onto Mountain Road, and shoulders vary from 2' to 4'-wide.

Delaware and Hudson Canal Towpath: This pathway follows the towpath of the D&H canal from Main Street opposite Keator Avenue along the base of Joppenbergh Mountain through downtown and terminating at Central Avenue. The pathway varies in width from 12' to 14'-wide in the western half of downtown to 6' to 8'-wide through the Army Corps flood basins. A simple timber foot bridge, built as a temporary crossing onto the path from Central Avenue continues to provide access. The towpath is currently used as an informal pathway and has generally not been encroached upon by property owners, offering an excellent pedestrian and bike alternative to use of Main Street once any necessary access easements are obtained.

Brookside Connection: The Town identified a 600 linear feet trail link opportunity that would connect the Bathhouse at the Recreation Center to James Street through the Recreation Center site. The link would involve creating a 8'-to-10'-wide multi-use path between the chain link fencing near the playground and the top of the slope along the small brook adjacent to the site. The top of the slope is currently 8' to 20' in width and is generally level. Closer to James Street an existing gravel drive exists that could be utilized. The crossing of James

Street would be needed, and it may be possible to align that crossing to be situated near the intersection with Pinecrest Road.

Pathway along the Rondout Creek: A creekside trail connection appears feasible between the future Creek Locks Park along the top of the stream bank to the signalized intersection of Route 32 and 213 at the Bridge. Some minor obstructions exist including two grouted rip rap swales and a propane storage tank. The route may also cross two privately-owned parcels.

Fairview Avenue: Fairview Avenue is a dead end paved road off of Mountain Road. The road right-of-way continues beyond the dead end signage and barricades and travels under the trestle connecting to Keator Avenue next to the Rondout Bridge. The existing grade is a gradual incline which increases slightly in steepness approaching Mountain Road. The paved portion of the road is 16'-wide and the gravel path along the right-of-way grade is 16' to 20'-wide to Keator Avenue.

Crosslinks between Main Street & D&H Towpath:

- County Parcel near Keator Avenue: Directly opposite Keator Avenue on Main Street, this connection is well north of "downtown", but offers some interesting interpretive opportunity in the rock face, caves and subterranean ponds.

- Hardenburgh Lane: Hardenburgh Lane is the main vehicle ingress and egress route for the Willow Kiln area and the adjacent municipal parking area. The narrowness of the lane results in conflicts between vehicles and pedestrians, especially during special events. There is an existing crosswalk on Main Street at the Hardenburgh Lane intersection.

For development:

- Belltower Lane: The narrow paved lane adjacent the Belltower gallery provides a pleasant pedestrian connection to the parking. The alley is used for vehicular access to the Willow Kiln parking area and is prone to pedestrian and vehicular conflicts.

- Next to the Red Brick Parking: A lot with a mobile home adjacent to the Red Brick Parking Lot might provide a connection further east. The lot is constrained due to its narrowness and would be better suited to function as a pedestrian pocket park.

- Post Office Site: The other existing Main Street crosswalk is at the Rosendale Post Office. After reconfiguring parking and access, there may be adequate space to create a pedestrian connection through the site between Main Street and the D&H towpath.

- Vacant Lot East of the Post Office: A sixth potential connection site exists utilizing a reportedly vacant lot east of the Post Office.

2.4. Existing Transportation Data Analysis

2.4.1. Parking capacity

The four main parking lots in the Town, along with the DOT Park-and-Ride Lot and on-street capacity along Main Street were analyzed. The existing formalized parking was inventoried and potential estimated expansion was also analyzed. Counts were taken of the number of cars using several different aerial photographs. The results are illustrated in the table below.

Table 1: Town of Rosendale Parking Areas

Parking Count Aerial Photo/Year	Willow Kiln	Binne-water	Rec Center	Creek Locks	Main Street	Park and Ride	Total
UCGIS - 2001	6		54		3		63
UCGIS - 2004	12		3		12		27
UCGIS - 2009	19		35		9	55	118
UCGIS - 2013	23	0	12	0	17	56	108
Bing 2012	75	0	51	1	14	19	160
Bing Birdseye 1	11	0	4	0	11	27	53
Bing Birdseye 2	11	0	14	0	12	39	76
Bing Birdseye 3	14	0	3	0	19	28	64
Bing Birdseye 4	15	0	5	0	16	38	74
Google Sept. 2013	30	9	6	0	10	43	98
Average 2001 - 2013	*21.6*	*1.3*	*18.7*	*0.1*	*12.3*	*38.1*	*84.1*
Average 2012 - 2013	*25.6*	*1.3*	*13.6*	*0.1*	*14.1*	*35.7*	*90.4*
Existing Capacity/Striped	85	0	88	0	90	60	323
Used Percentage	**30%**		**15%**		**16%**	**60%**	**28%**
Future Capacity	*160*	*160*	*148*	*160*	*90*	*60*	*778*
Used vs. Future	*16%*	*1%*	*9%*	*0%*	*16%*	*60%*	*12%*

2.4.2. Planned transportation and land use developments

Williams Lake Project: The Williams Lake project is a resort development project that is likely to increase traffic on the area roadway network, including Binnewater Road (CR 7). The transportation impacts of the project are being mitigated through the Environmental Impact Statement process and the Town planning board. The project will provide opportunities to anticipate circulation, connectivity, and wayfinding opportunities to market downtown business at the Resort. Multi-modal routes and wayfinding between the Finding Rosendale footprint and the project site are being investigated by the Williams Lake project.

Park and Ride Lot Expansion: The existing Route 32 Park and Ride lot reaches capacity frequently and overflow users regularly use the Rosendale Recreation Center parking lot across Route 32. The expansion of the parking lot will help to reduce vehicular and pedestrian crossing of Route 32 at this location whether to find parking spaces or to reach the UCAT bus stop. It is also noted that the improvements planned for the recreation center will increase use of the Rec Center parking lot and, as a result, will need to accommodate its own on-site recreational users when improvements are completed.

UCAT Park & Ride Lot on Route 23

Rosendale Recreation Center Improvements: The Town is completing several improvements at the recreation center complex including repairs to the Bathhouse, creation of trail user comfort facilities, and the restoration of the community pool. The Bathhouse and comfort facilities are anticipated to attract more bicyclists, increasing the need to implement more 'Complete Streets' measure along Route 32 in response.

Keator Avenue Bridge Rehabilitation: The existing bridge deck is approximately 38'-wide with 12'-wide travel lanes, 2'-wide shoulders, and 5'-wide sidewalks in each direction. Currently pedestrians are accommodated on the sidewalks and bicycles utilize the travel lanes. The bridge is slated to undergo a design study to evaluate the replacement, rehabilitation, or closure. Replacement with a new bridge presents the opportunity to configure for bike lanes, wider sidewalks, or other features to match future improvements. The closing of the bridge to vehicular traffic opens up the option to investigate the potential to utilize the existing structure as a pedestrian/bicycle facility.

2.4.3. Traffic volume projections

Overall, traffic volumes have generally been flat or declining over the past several years across most locations in the Mid-Hudson Valley. The draft Year 2040 Ulster County Long Range Transportation Plan assumes that these trends will continue, partly due to flat population growth in the region and a trend towards alternative modes of transportation.

Traffic volumes are not predicted to increase significantly in the study area into the foreseeable future. The Final Environmental Impact Statement for the Williams Lake Project does anticipate a decrease in the Level of Service for Binnewater Road (CR7) and the intersection with Lucas Ave (CR1); this intersection, however, lies outside of the study area. While increases in traffic volumes on Binnewater Road (CR7), Main Street (Route 213), and Keator Avenue (CR7) are anticipated during the PM Peak Hour, these increases were not considered to be significant as to warrant signalization or other major mitigation measures.

2.4.4. Land use regulations related to pedestrians and bicyclists.

There are currently no specific regulations related to pedestrians and bicyclists in the Code of the Town of Rosendale. Chapter 18 established the Park Commission to 'establish and maintain playgrounds, parks, and neighborhood recreation areas'. While the legislation does not specifically include trails it is likely to consider a trail to be either a park or neighborhood recreation area. Chapter 59 – Streets and Sidewalks establishes a permit requirement for excavation of streets and sidewalks in the Town. Chapter 60 – Subdivisions includes a requirement for sidewalks on streets under §60-25, and §60-30 establishes a requirement for curbing and sidewalks on both sides of collector streets and local streets. Sidewalks are required to be a minimum of 4-feet-wide and buffered from the curb by 30" landscaped buffer.

As discusses in Section 2.2.2, the proposed amendments to the Design Guidelines and Standards include several specific pedestrian and bicycle-related requirements for new commercial developments. Once adopted, the law will ensure adequate pedestrian and bicycle accommodations are considered as part of new development or signification redevelopment in the business districts of the Town, including the Route 32 and Downtown corridors.

The Shawangunk-Joppenbergh Public Planning Process (SJPPP) Final Report and Recommendations suggested a new local law including development of policies and protocols for parking enforcement which would improve pedestrian and bicyclist safety on some key routes such as Mountain Road.

Parking and Connection Recommendations from the SJPPP

2.4.5. Capacity of road corridors to accommodate pedestrian/bicycle paths

The table below provides a summary of average widths of the roadways in the project area. The available width displayed is undisturbed horizontal width within the existing right of way (ROW).

Table 2: Roadway Dimensions

Street/Road Name	Approximate Widths			
	ROW	Pavement	Sidewalk	Available
Binnewater/CR7	50’	22'	--	28'
Route 32 (North of Rondout)	60'	40'	--	20'
Route 32 (South of Rondout)	60 - 80'	52'	--	8' - 28'
Route 213 Main St (Binnewater to Keator)	80 - 100'	30'	5'	45' - 65'
Route 213 Main St (Downtown: Keator to Snyder)	40'	30'	10'	0'
Route 213 Main St (Snyder to NY 32)	50 - 70'	30'	10'	10' - 30'
Creek Locks/CR25	40 - 50'	24'	--	16' - 26'
James Street	50'	26'	--	24'
Keator Avenue	50'	28'	10'	12'
Mountain Road	40'	32'	--	8'

The potential also exists to expand the available width for improvements through property acquisitions or reconstruction of the roadways to re-allocate the available width to better fit desired features.

Potential improvements that could be implemented on these roadways within the available width are Multi-use paths, cycle tracks, shared lanes with ‘sharrow’ markings, sidewalks, and bike lanes.

2.5. Existing Signage Inventory

An existing signage inventory was conducted as part of the field investigations which included photo-documentation of signage. Overall, signage in Rosendale is currently an eclectic mix of standard NYSDOT system signs, county road signage, byway signage, and local signs. In some instances, hand-made signage has been put in place to help orient, direct and inform visitors.

2.5.1. Sign Typology

Gateway Signage:

Large timber post and panel 'Welcome to Rosendale' signs are posted at various entrances to the Rosedale Hamlet, notably at the Route 32 and 213 gateways. The current signs are somewhat dated timber post and panel structures. The sign at the south gateway on Route 32 (near the Senior Apartments) includes a timber planter.

Gateway Sign near Senior Apartments on Route 32

Directional Signage:

Directional signage includes standard NYSDOT green directional and blue site directional. In addition, there is NYS Bicycle Route directional signage, local directional signage for the Main Street Business District, scenic byway directional signage and other private directional signage. Vernacular directional signage is provided for parking areas; the Wallkill Valley Rail Trail and Rosendale Trestle are generally handmade as formal signs do not yet exist.

Green and blue directional signage

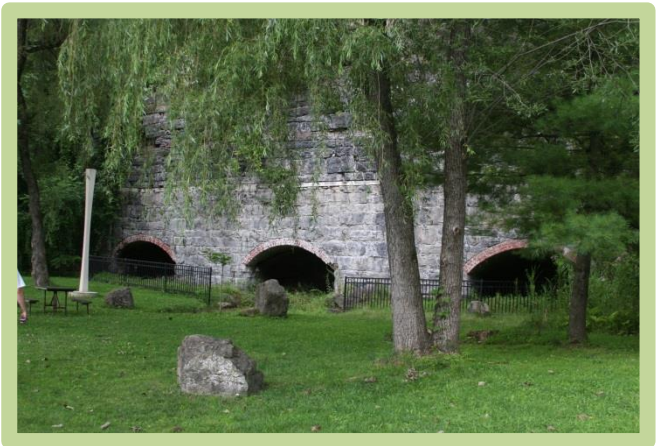
Location Signage: Similar to directional signage, there are several systems of location signage in Rosendale, ranging from the large structure marking the Rosendale Community Center to a mix of signs for the park and ride on Route 32. A wide variety of location signs ranging from homemade, to standard hardware store signs, to formal signage is in use near the WVRT trailheads.

Informational and Interpretive Kiosks: Two notable kiosks exist in the project area, one located in front of the Rosendale Library on Main Street and a second at the Mountain Road trailhead for the WVRT. The kiosk at the library is a three sided timber kiosk with an asphalt shingled roof. This kiosk appears dated, but has a unique character to the colors and graphics. The kiosk at the trailhead is a timber single panel structure with a roof. An extensive inventory of interpretive panels was not part of the project as there are other interpretive panels throughout Rosendale.

Local Graphic Standards: There are currently no local graphic standards and signage is typically in compliance with either the Manual of Uniform Traffic Control Devices, County DPW standards or in compliance with local zoning (Chapter 75-22 Signs). Local codes specify allowable signage by land use, control size and placement; but the codes do not presently include design standards. A proposed amendment to the Town's Design Guidelines and Standards would provide greater control over sign style, but will not include graphic standards.

2.5.2. Local Graphic Design Influences

Historical influences include the cement industry, the Delaware and Hudson Canal, the railroad industry/Rosendale Trestle, Rondout Creek and Joppenbergh Mountain. Arches are the most common architectural forms found throughout Rosendale including the massive cement kilns found at Willow Kiln and Binnewater Parking Areas and in the architectural arches that adorn most of the residences in Rosendale. Color influences are found in existing signage and the current town logo. A sky blue color appears to be in frequent use, while the older signage is white lettering on a dark umber background.



'Arches' at Willow Kiln Park

2.6. Existing Conditions and Opportunities Map

The Existing Conditions and Opportunities Map encapsulates the Finding Rosendale Project's preliminary findings of the B&L / WDesign Team resulting from the review of previous planning documents, site reconnaissance, and transportation engineering analysis.


Binnewater Parking Area Improvements
Welcome Kiosk/Information w Business Directory
Eliminate Berm and Enhance Gateway with New Landscape Plants
Formalize Parking Including Designated Horse Trailer Parking Areas
Upgrade Pedestrian/Bike Crossing with Colored/Textured Pavement
Formalize Utility Access Drive
Formalize Park and Picnic Area Adjacent to Kilns
Create Park and Picnic Area with New Interpretive Facilities
Proposed Triangle Area Improvements
Enhanced Ped/Bike Crossings with Colored Textured Crosswalks, Signage and Ped/Bike Signal Upgrades
Formalize Connections/Links for Off-Road Pathways
Add Low Growing Plant Massing to Triangle Island
Formalize Green/Ped Corridor Along Commercial Frontage with Street Trees, Greenspace, Trail
D&H Heritage Interpretive Multi-Use Path
Formalize D&H Trail from Route 32 to Binnewater
Establish Trail Gateways at Route 32 and at Route 213 Keator Intersection
Establish Interpretive Tour Rest Stops
Alt Event Parking?
Route 32 N. Welcome Gateway/Pull-Off
Formalize Sidewalks through Access Points
Alt-Mid-Block Crossing
Alt-Creek Locks Multi-Use Path (N. Shoulder)
Private Improvements and Utility Constraints
Potential Trail Extension
Welcome/Info Kiosk
Formalize Parking Area
Creek Locks Connector Trail
Shoreline Access for Fishing, Boating, Wading
Grouted Swales
Propane Tank
To the Joppenberg Mountain Trail System
Interpretive Station Site
Prism Remnants
Connections to Main St.
Alt Cross Connection
Shared Road Connection
Upgrade Timber Bridge
Proposed Creek Locks Park
Route 32 North Welcome with Parking for Events & 'Park n Bike' Facilities
Walking/Biking link along Rondout Creek to Downtown, Trestle (via D&H Trail), Route 32 Bike Route, Rondout-James St. Promenade
Gateway Facilities—Visible Information Kiosk & Shelter, Picnic Facilities, New Landscape Plants
Shoreline Recreational Access, Canoe Kayak Launch and Storage
Willow Kiln Area Improvements
Formalize Route of the D&H Trail Through Parking Area
Formalize Informal Parking
Establish Interpretive Trail and Enhance Features
Potential to 'Re-Water' a Canal Segment
Welcome Kiosk/Information w Business Directory
Evaluate Binnewater Alts for Off-Road/On-Road Paths
Binnewater/Main Street Intersection
Evaluate Realignment utilizing WVLT properties
Upgrade Crossings with Colored/Textured Crosswalks
Establish Interpretive Trail and Enhance Features
Potential to 'Re-Water' a Canal Segment
Welcome Kiosk/Information w Business Directory
Route 32 Bridge
Pedestrian/Bicycle Railing Improvement
Painted Sharrows and Signage to Reinforce Shared Use Crossing Bridge
Evaluate Parallel Bike/Pedestrian Structure Feasibility
Aesthetic Improvements To Pump Station Site
Shoreline Retaining Wall Access Constraint
Existing Restaurant, Bus Ticket Vendor
Potential Rock Slide Zone
Shore Access Utilizing Existing Public ROW's
Rondout-James Street Promenade
Primary Trail Connection to WVRT/Trestle
Primary Trail Connection to Downtown (North/South)
Passive Water-Based Recreation Destination
Incorporate Recreational Access into Shoreline/Flood Resiliency Improvements
Ex. Private Bicyclist Services
Keator to Binnewater Connector Multi-Use Path
Evaluate Trail Crossing Alts for Keator Bridge Rehab/Replace
Bike-Ped Intersection Upgrades Colored/Textured Crossing
Private Property—Access Easements Needed
Route 32 Pedestrian Crossing
Improve Pedestrian /Bicyclist Crossing Safety
Colored/Textured Crosswalks
Traffic Calming at Approaches
Evaluate for Bike/Ped Operated Signal
Ex. Bus User Parking/Drop-Off
Trail User Parking
Add Rest Stops, Benches to Existing Stone Stairway Connector
Evaluate Feasibility of Fairview Avenue Reuse as Alt to Keator Connector
Keator Avenue Connector (Challenging/Steep Grade)
Gateway Hollow Welcome Park and Information Kiosk
Evaluate Bike Lanes for Elting Road
Wallkill Valley Rail Trail to Elting, New Paltz, Gardner
Mountain Road WVRT Crossing Area
Establish Formal Trail Crossing with Colored Textured Pavement, Enhanced Signage
Standardize No Parking and Provide Barriers Where Needed
Provide Upgraded Gateway and Landscape Plants
Establish 'Gateway Hollow Welcome Park'
James Street Connection Link
Evaluate Bicycle System Alternatives including:
Bike Lanes
Single-Track Cycle Track (Both Sides)
Double-Track Cycle Track (North Side)
Brookside Trail Link Segment
Trail User Welcome Info, Bike Lockers
Potential New Path Senior Accessible
Existing Stairs to Senior Center
Rosendale Recreation Center
Trail User Comfort Facilities—Water Fountain, Showers, Pool, Picnic Area, Shelter
Park n Bike' Parking for Route 32 South—Walking/Biking link to Rondout Promenade, Route 32 Bike Route, Bike Shop, Bus Station
Gateway Facilities—Visible Information Kiosk, Existing Sign Refit, New Landscape Plants.
Evaluate Existing Parking for Reorganization
Bike Path
Shared Parking Area
Route 32 Signed Bike Route
Senior Apartments
Route 32 South Welcome Gateway/Pull-Off
Legend
Hamlet Parcels
Barton & Loguidice, D.P.C.
Engineers • Environmental Scientists • Planners • Landscape Architects
1 inch = 200 feet
Ulster County
Finding Rosendale
Ulster County September 2014 New York
Figure 1
Project No. 369.004

3. Opportunities:

3.1. Binnewater Road Parking Area

The Town-owned Binnewater Road Parking Area provides the best access to the Wallkill Valley Rail Trail. The site parcel includes a decommissioned reservoir and a line of lime kilns that present an opportunity for heritage interpretation and could provide a setting for a small park and picnic area similar to the Willow Kiln Area. The Town desires to direct visitors to this site as the primary trailhead and to improve connections between this site and downtown Rosendale.

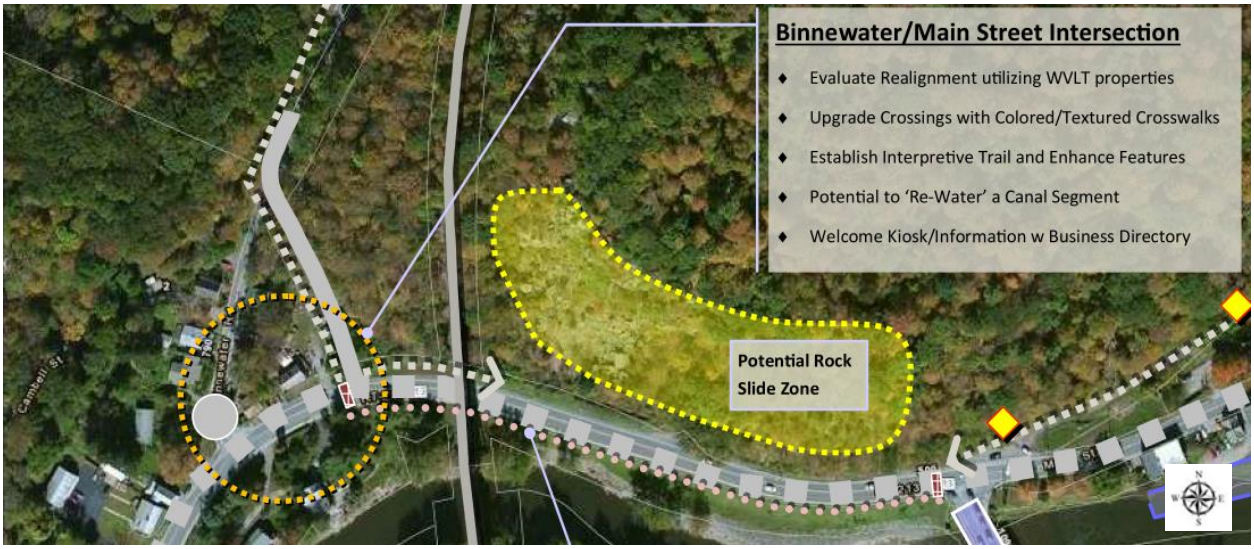
Opportunities at the Binnewater Parking Area include:

- Welcome kiosk with interpretive signage, an information board with a Downtown Rosendale business directory, and brochure holders;
- Elimination of berms along Binnewater Road and replace with street trees and plantings and timber railings;
- Formalize parking areas and interior circulation pattern including designated horse trailer parking areas;
- Establish a pedestrian crossing of Binnewater Road with colored and textured pavement treatment and warning signage;
- Establish a system of trails on the Town-owned lands around the reservoir;
- Formalize a landscaped park and picnic area with interpretive signage adjacent to kilns.

3.2. Binnewater Road – Main Street Intersection

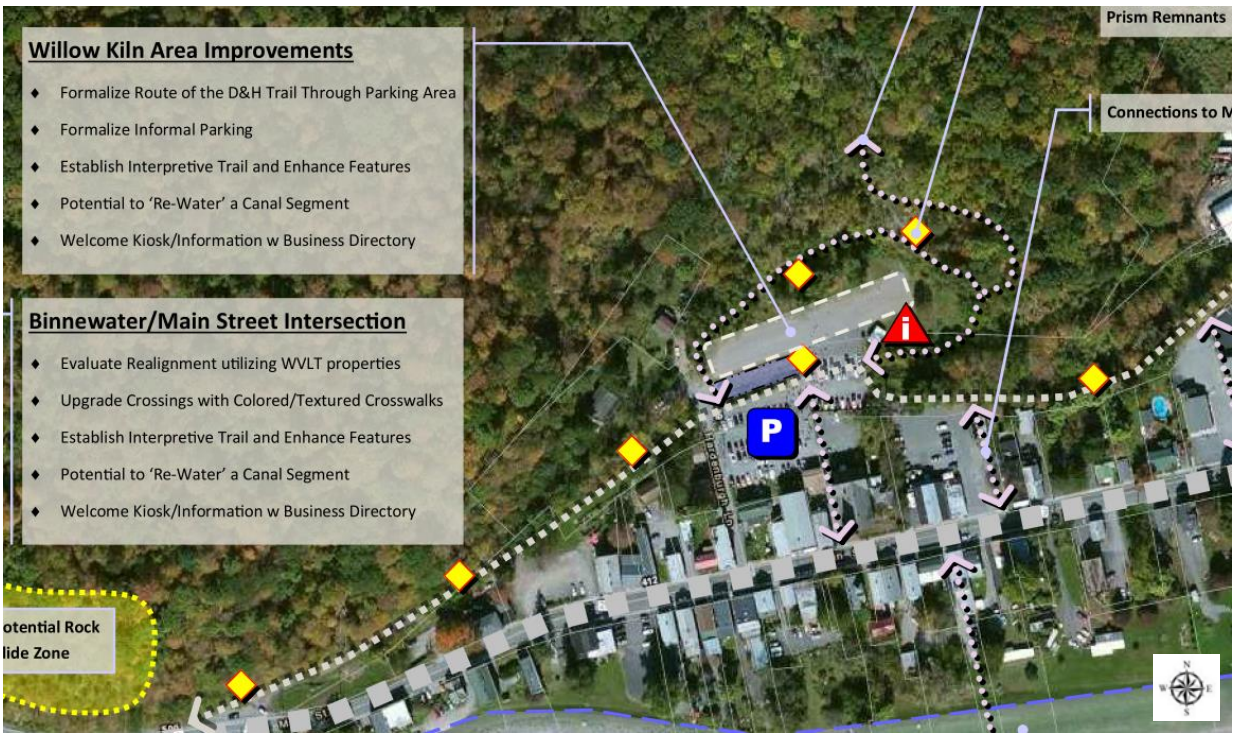
There may be an opportunity to realign Binnewater Road creating a safer connection and opening the road corridor for safer pedestrian access to the Binnewater Parking Area and Trailhead. The map depicts the realignment of Binnewater Road as it meets Main Street (NY-213) using WVRT properties. In addition, upgrading the crossings with colored and/or textured crosswalks and establishing a welcome kiosk with a business directory are recommended here, just as by the Binnewater Parking Area. A new off-road path could be accommodated in the new road corridor and the new crosswalk on Main Street would provide a safer crossing to the existing sidewalk along eastbound Main Street.

Alternatively, this right of way could be used to provide access for pedestrians and bicyclists as an alternative to travelling on Binnewater Road. As noted under section 2.3.2, Binnewater Road features minimal shoulders along the steep gradient near Main Street, severely restricting opportunities for safe pedestrian and cyclist access. Improving access on the road right of way would entail significant expense due to the steep grade and the need to reconstruct existing retaining walls. An alternative route for may therefore improve cyclist and pedestrian safety and access.



3.3. Willow Kiln Park Area

Moving into Downtown Rosendale, the map describes Willow Kiln Area Improvements. These include formalizing both the parking area and the route of the D&H Canal Tow Path Trail through the parking area. Just as was recommended for the Binnewater Road-Main Street Intersection, establishing a welcome kiosk with a business directory, establishing an interpretive trail, and investigating the potential to "re-water" a former D&H Canal segment are recommended in this area.



3.4. D&H Heritage Interpretive Multi-Use Path

The D and H Canal Corridor is largely publicly owned through downtown Rosendale providing a great opportunity to develop an off-road pedestrian and bicycle corridor paralleling Main Street. At the NY-213 – NY-32 intersection, a trail gateway could be established opposite Creek Locks Road at the existing traffic signal. A series of interpretive signs could be developed along the route calling attention to several unique features visible along the corridor. The Willow Kiln parking area would be slightly reconfigured to create a safe dedicated path through the parking which would include the previously mentioned re-watered canal segment.

3.5. Triangle Area (Intersection of Route 32 and Route 213)

The intersection of Route 32 with Main Street (Route 213) and Creek Locks Road (CR 25) is affectionately known as the Triangle. The intersection was recently reconstructed; however, the Town desires additional pedestrian safety and landscape changes to enhance one of the most important gateways into Downtown Rosendale.

With two existing traffic signals, the intersection can easily provide for safer pedestrian crossings without major modifications. The existing access management and community maintained pocket park provide a good starting point and opportunities for related projects create new pathways that could funnel large numbers of visitors through the intersection. Opportunities for Triangle Area Improvements include the following:

- Enhanced pedestrian/bicycle crossings with colored and/or textured crosswalks, new wayfinding signage and pedestrian/bicycle signal upgrades;
- Formalize connections/links for other anticipated off-road pathways including the D&H Canalway Trail and a trail along the Rondout Creek from Creek Locks Park;
- Add appropriate mulching and ground cover plants, to the Triangle island; and
- Formalize a green/pedestrian corridor along commercial frontage on NYS-32 with street trees, green space, and the recreational trail.

3.6. Creek Locks Park

Creek Locks Park is a proposed recreational development on a large tract of Town-owned land between Creek Locks Road and the Rondout Creek. While the site is primarily intended to be redeveloped for active recreation as ball fields the site also provides opportunities to meet overflow parking demands, provide an alternative trailhead for the D&H Canalway Trail, and provide shoreline access to the Rondout Creek. These additional opportunities include:

- Route 32 north Welcome Center with parking for events & 'Park-n-Bike' facilities;
- Walking/biking link along Rondout Creek to Downtown, Trestle (via D&H Trail), Route 32 Bike Route, and the Rondout-James St. Promenade;
- Gateway Facilities—visible information kiosk & shelter, picnic facilities, new landscape plants;
- Shoreline recreational access, canoe/kayak launch and storage.
- Ensuring that the development of a formalized pedestrian corridor on Rt 32 is made in conjunction with the development of Creek Locks Park is important.

Formalized pedestrian corridor including a signalized pedestrian crossing on NYS-32 will be necessary to encourage safe pedestrian access of the park.

- Provide pedestrian heads and crosswalks at both signals on Route 32.

3.7. Route 32 Bridge

With a unique blue paint color, the Route 32 Bridge crosses the Rondout Creek on NY-32 entering The Triangle from the south. Since the bridge was recently rehabilitated, major changes to the structure are not anticipated. It is likely that minor improvement to enhance the pedestrian and bicycle use of the bridge could easily be implemented including a pedestrian/bicycle railing retrofit, painted "sharrows" and signage to reinforce shared-use bridge crossing.

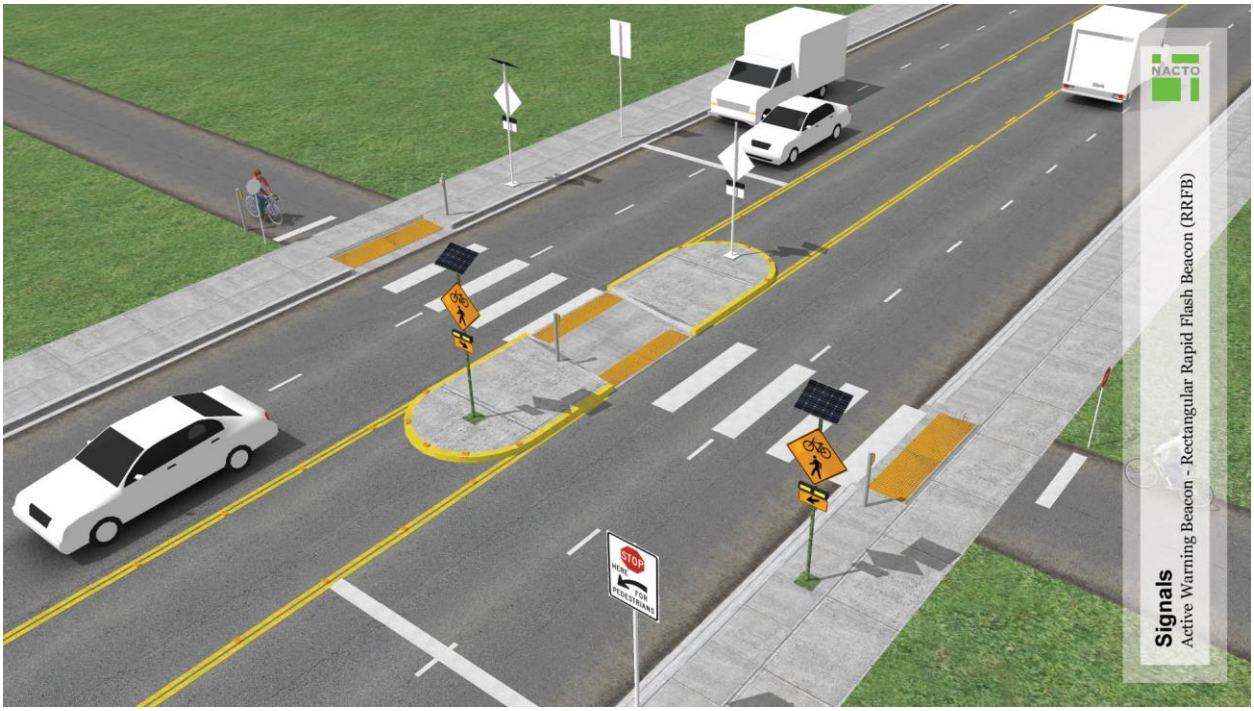
3.8. Rondout Promenade

One of the recommendations of a recent Town flood mitigation project along the Rondout Creek is the creation of a roadside promenade along James Street adjacent to the Creek. This promenade has the potential to become a key

pedestrian and bicycle system linkage feature as it could provide an off-road link between the Mountain Road Trailhead and the trail-user oriented facilities at the Rosendale Recreation Center. In addition to implementing flood resiliency improvements, the promenade could be designed to create an attractive, water-based passive recreation destination as well.

3.9. Route 32 Pedestrian Crossing

South of the Route 32 Bridge, the cluster of important sites that include the Rosendale Recreation Center, NYSDOT Park-and-Ride lot, bus ticket vendor Market Market Café and Favata's TRT Bicycle show and rental center create considerable pedestrian demand for crossing between both sides of Route 32. Specific improvements at this crossing could include either flashing beacon or HAWK warning systems, in combination with traffic calming measures which would include colored and/or textured crosswalks and warning signage at approaches. A reduction in speed limits at the approaches to this crossing should also be considered.



3.10. Rosendale Recreation Center

Several opportunities exist at the Rosendale Recreation Center to better utilize parking space, leverage new and upgraded recreational amenities, and to leverage trail user comfort facilities – amenities that generally are not found elsewhere along the WVRT. Thus, the Town will act as a port of call and welcome center for the Town of Rosendale as a whole. Improvement opportunities at the Rosendale Recreation Center include:

- Providing wayfinding for WVRT users that direct them to Recreation Center comfort facilities—water fountain, showers, pool, picnic area, shelter;
- Amenities for walking/biking link via the Rondout Promenade, Route 32 Bike Route, bicycle shop, bus station;
- Gateway facilities including an informational kiosk, existing sign retrofit, new landscaping; and
- Evaluate existing parking pavements for efficiency and expanded capacity.

3.11. James Street Connection Link

James Street provides the most direct route between the Recreation Center and the Mountain Road trailhead access to the WVRT and Rosendale Trestle. Just southeast of the Recreation Center site the road veers away from the Rondout necessitating one of several potential bicycle systems, such as bike lanes, one-way cycle track (both sides), or single two-way cycle track (north side). (See Table 3 Below)

3.12. Mountain Road Trailhead and Mid-Block Trail Crossing Area

Mountain Road at the intersection with the WVRT is just south of the Rosendale Trestle and is currently one of the easiest trail/trestle access points that visitors can find; however, the existing road right-of-way is narrow and parking is prohibited. Opportunities for improvements at this important trailhead include:

- Standardizing the “no parking” and other signage and providing more appropriate and visually appealing barriers where needed;
- Establishing a more visible trail crossing with colored and textured pavement;

- Enhanced trail oriented gateway signage on the WVRT approaching Mountain Road including creation of a “Gateway Hollow Welcome Park”;
- Refit of existing kiosks to match new wayfinding signage system;
- Replacement of concrete jersey barriers with softer timber railings and bollards;
- Better delineation of pavement types including textured and colored crosswalk over Mountain Road;
- Upgrading the streetscape including consolidation of signage, addition of new plantings to help delineate pavements, and to define public and private spaces.

3.13. Fairview Avenue

Fairview Avenue could provide an alternative off-road Bicycle and pedestrian connection between Keator Avenue and Mountain Road. This connection would increase access to Hardenburgh Park, which has historically been an important public recreation area for Rosendale.

3.14. Parking Capacity Improvement Opportunities

The analysis of parking capacity presented in Table 1 (see section 2.4.1) illustrates several important trends in terms of parking capacities and future demands. In general, the survey of aerial photos indicates an increase in demand over the last five years; however, overall parking for all of the lots is at about 28% of capacity. This excess parking capacity is in spite of the inclusion of the Route 32 Park-and-Ride Lot which is generally near capacity.

Total existing capacity including the Willow Kiln, Binnewater, Recreation Center, Main Street and Route 32 Park-and-Ride lots was estimated at approximately 323 cars and the average number of occupied spaces was around 90 cars. It is unlikely that any of the parking counts was made during special events; therefore, counts could be taken during these events to get a more accurate assessment.

In addition to an analysis of capacity and utilization, potential to expand capacity at the various lots was analyzed. The greatest potential lies at two

locations –the underutilized lot at the Binnewater Road Trailhead (potential future capacity ~160 spaces) and the future Creek Locks Park (potential future capacity ~160 spaces). Existing parking at Willow Kiln and the Rosendale Recreation Center could be reconfigured to expand lot capacity by 75 and 60 new spaces, respectively.

Appropriate wayfinding signage to direct the public to desirable parking spaces will be an important opportunity. Enhancement of the Willow Kiln lot in Downtown Rosendale presents the greatest opportunity for local economic development; emphasis should focus on directing visitors here. Additional directions can be provided at Willow Kiln directing visitors to the Recreation Center, Binnewater and Creek Locks lots when Willow Kiln is at capacity.

Other parking locations might be preferred seasonally and during special events based on the event site, for example, when the Recreation Center is hosting an event, Willow Kiln and Creek Locks could provide alternative parking sites.

Finally, the proposed Design Standards and Guidelines include excellent guidance for commercial parking lots that should be applied to the reconfiguration of the existing Town lots. Among the recommended concepts is the creation of green spaces between blocks of 40 car spaces, creating formal pedestrian interconnections and incorporating walkways into parking lots. The incorporation of green infrastructure practices will also be an important opportunity for the Town to demonstrate the local commitment to comprehensive and sustainable design practices.

3.15. Roadway Pedestrian and Bicycle Accommodations

The analysis presented in Table 2 Roadway Sections in the previous Section of this report suggests several public roads within the study area have sufficient space to allow for pedestrian and bicycle linkages. Table 3 below suggests implementation opportunities in a matrix form based on the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide. The NACTO Guide has been officially supported by the Federal Highway Administration for use in

planning for pedestrians and bicycles alongside the AASHTO Guide to Bikeway Facilities; the recommended NACTO Guide practices are generally permitted under the Manual on Uniform Traffic Control Devices (MUTCD).

Table 3: Comparison of Pedestrian and Bicycle Accommodations for Selected Road Segments

Street/Road Name	Approximate Widths				Pedestrian and Bicycle Improvements							
	ROW	Pav't	Sidewalk	Available	Sidewalk	Mid- Block Crossing	Shared Road	Bike Lanes	Bike Boulevard	Buffered One Way Side Path	Buffered Two Way Side Path	Multi-Use Path
					5' Min.Width	5' Min.Width	Min. 11' Lanes	5' Min.Width	Min. 11' Lanes	XX' Min.Width	XX' Min.Width	8' Min.Width
Binnewater/CR7	50'	22'	--	28'		●	●					●
Route 32 (North of Rondout)	60'	40'	--	20'	●		●	●		✓	✓	
Route 32 (South of Rondout)	60 - 80'	52'	--	8' - 28'	●	✓	✓	●		✓	✓	
Route 213 Main St (Binnewater to Keator)	80 - 100'	30'	5'	45' - 65'	●		✓	●		✓	✓	✓
Route 213 Main St (Keator to Snyder)	40'	30'	10'	0'	●	●	●					
Route 213 Main St (Snyder to NY 32)	50 - 70'	30'	10'	10' - 30'	●	●	●					
Creek Locks/CR25	40 - 50'	24'	--	16' - 26'	●	●	●	●		●		●
James Street	50'	26'	5'	24'	●	●	●	●	●	●	●	●
Keator Avenue	50'	28'	10'	12'	●		●	●		●	●	●
Mountain Road	40'	32'	--	8'	●	●	●		●			

KEY:
- ● Feasible;
- ✓ Requires additional study or agency coordination to determine feasibility

3.15.1. Sidewalks

Sidewalks should conform to the state standard minimum width of 5' when directly adjacent to the curb line. Ideally, walks would be wider, and the Proposed Design Guidelines recommend 8' wide walks.

3.15.2. Mid-Block Crossings

Several mid- block crossings are provided along Main Street (Route 213) and these crossings are currently striped with paint. While effective for

communicating crossing locations to pedestrians, additional measures would increase the awareness of pedestrian crossings for motorists. The use of textured and colored pavement treatments, warning signage and curb bump-outs would more effectively mark crossing locations for most of the roads in the study area. For major roads including Route 32, in addition to these treatments, flashing beacons, and refuge islands would enhance safety at mid-block crossings.

A variety of surface material options exist for crosswalks that can improve the texture and color of the crosswalk space. Three modern techniques are recommended for consideration: applied thermoplastic (below left), embedded thermoplastic (below middle) and mill then infill with colored and imprinted asphalt (below right).

Applied Thermoplastic: This is a relatively new product was developed by Alternative Paving concepts and involves application of a layer of aggregate impregnated thermoplastic that is bonded to the asphalt substrate, then heated and imprinted with a pattern, finished by a sanding process to provide skid resistance. An endless variety of colors and patterns are available, including the ability to incorporate branding, colored artwork and logos.

A Sample of Street Print XD Applied Thermoplastic

Inlaid Thermoplastic: In use for several years, this thermoplastic is inlaid into the heated surface of existing asphalt. This product is also available in a variety of colors and can be customized to include linework for logos and other illustrative elements. Artwork is limited as it needs to be interconnected with the rest of the pattern.

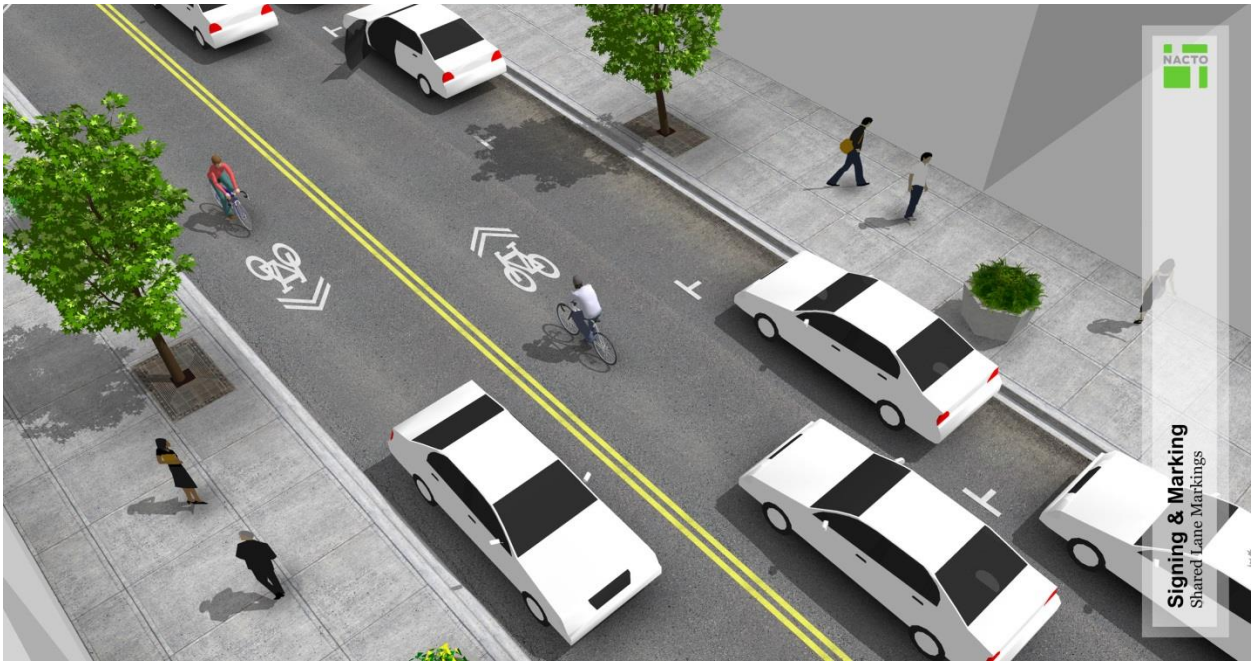
Inlaid Thermoplastic System

Milled Asphalt Color Emulsion System: This system involves mixing asphalt pavement with a color emulsion and imprinting a pattern. The existing asphalt can be milled, recycled and incorporated into the new crosswalk. A wide range of colors available and the flexible solution can be tailored to local design vocabulary. The final product is durable, long wearing regardless of volumes, and is somewhat easy to repair (requires hot mix application).

Asphalt Polymer Emulsion and Texturing System

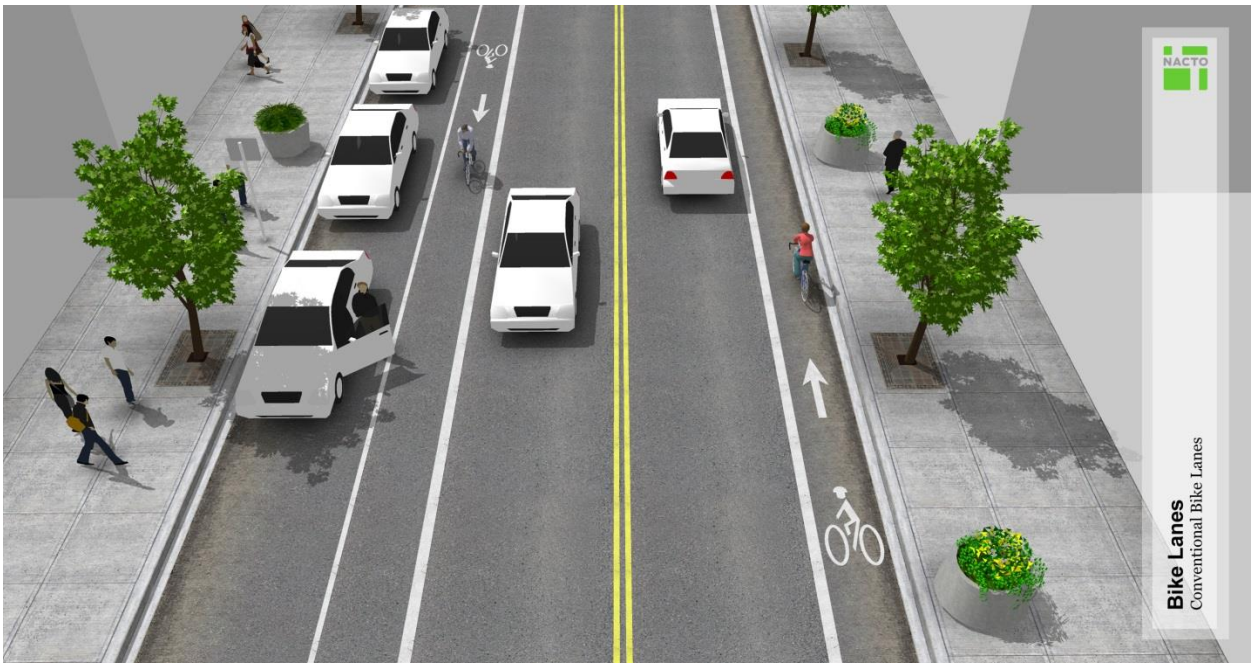
3.15.3. Shared Road

Shared roadways provide an opportunity for enhanced safety by providing clear markings and signage informing motorists that the road is shared with bicycles. Route 32 is signed as a bike route, but does not have the signage or pavement markings recommended in the current NACTO Guide as illustrated below:



3.15.4. Bike Lanes

Incorporation of bike lanes is an opportunity on several of the roads in the study area based on the available right-of-way. Minimum recommended width is 5' and in addition, a 2' buffer zone adjacent to parallel parking is recommended. Below is a graphic of the current NACTO guidance for bike lanes:



3.15.5. Bike Boulevards

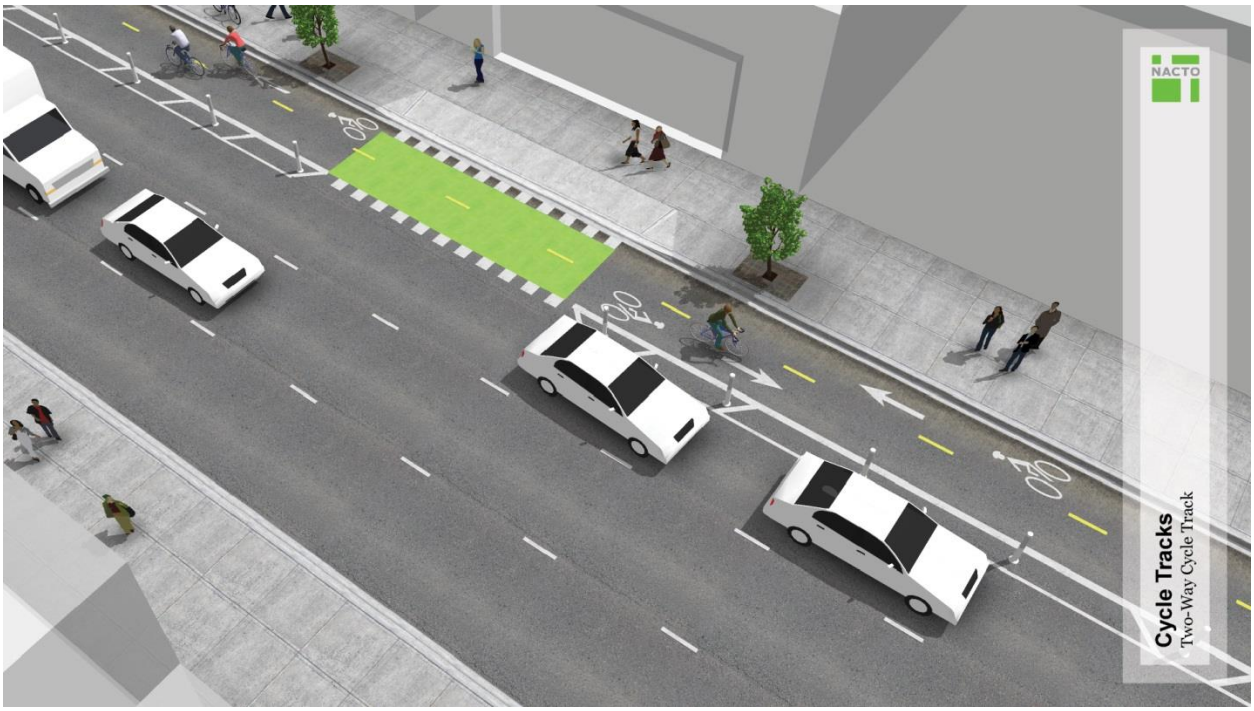
The NACTO Guide defines Bicycle Boulevards as "…*streets with low motorized traffic volumes and speeds, designated and designed to give bicycle travel priority. Bicycle Boulevards use signs, pavement markings, and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets."* This implementation measure would be an opportunity that could be considered for James Street and Mountain Road. Other mechanisms like the shared roadway would be used in conjunction with traffic calming techniques such as speed tables, mini-circles, and chicanes that local residents might welcome to reduce vehicle speeds.

3.15.6. Buffered One-Way Side Paths

Side Paths are similar to Cycle-tracks and are a recent innovation in urban-oriented bicycle and pedestrian pathway implementation. The buffered technique creates a particularly safe pathway by creating a physical barrier within the street corridor that separates pedestrians and bicycles from traffic. The single track should be a minimum of 5' wide and the buffer space a minimum of 3', thus requiring a total minimum of 8' of right of way space. One way side paths involve a single track implemented on each side of the roadway as illustrated in the NACTO Guide below:

3.15.7. Buffered Two-Way Side Path

Buffered two-way side path or two-way cycle track places a two-waypath on one side of the road, with one lane counterflow. This technique is useful where it is not practical to develop side paths on both sides of a roadway. The recommended minimum width is 12', however 8' is allowed for constained segments. The buffer space required is also 3' resulting in a total minimum cross section of 11' to 15'. Buffering can be a simple as striping, curbed islands as show above or a combination as illustrated in the NACTO Guide below:



3.15.8. Multi-Use Path

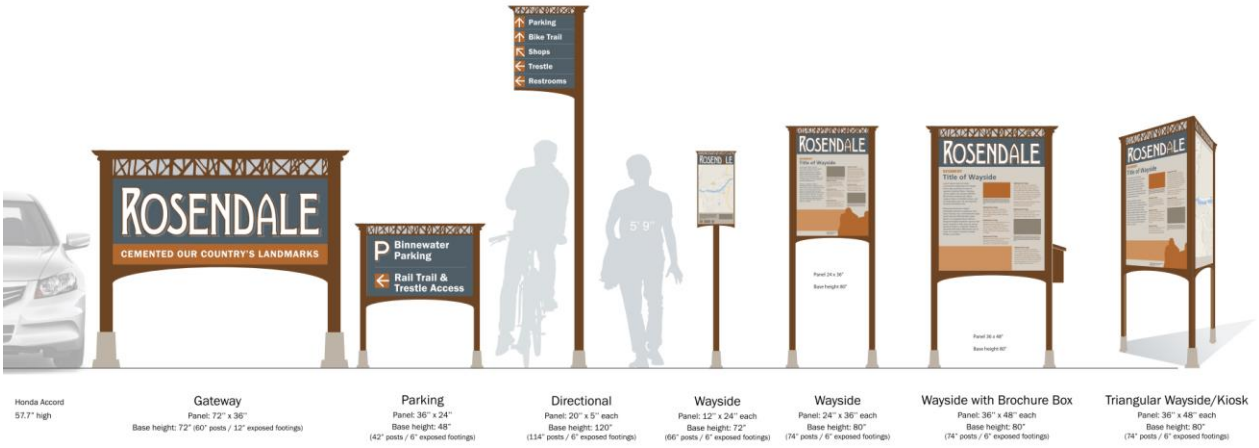
Multi-use paths are facilities on exclusive right-of-way and with minimal cross-flow by motor vehicles. These shared use paths should not be used to preclude on-road bike facilities, but rather to supplement a system of on-road bike lanes, wide outside lanes, paved shoulders and bike routes. The minimum recommended width is 8' for constrained areas, but the paths should generally be 12' wide with 2' wide minimum shoulders on each side. Guiderails may be required where steep side slopes are close to the path.

3.16. Wayfinding

A system of suggested signage concepts has been developed for use in guiding, informing, and directing visitors into and around the project area. Signage was developed with the input from the project committee and public and incorporated:

- Bluestone color: Blues, Grays or Green-gray;
- Integration of Cement in celebration of the local heritage: Dove gray post footings or posts themselves;
- Shape of Kiln: Curved arches also prevalent in local architecture;
- The Rosendale Trestle: forms at the top of the sign and rust color in signage and lettering.

The following preliminary concepts have been developed:



In conjunction with the signage system a proposed signage plan should be developed to locate the different signage systems throughout the project area. Signage locations will be modeled using simulation techniques and on-site mockups.